REMARKS

This submission is in response to the Official Action dated March 16, 2005. Claims 1, 7, and 9 have been amended. No new matter has been added. Claim 3 has been canceled without prejudice or disclaimer of the subject matter therein. Claims 1, 2, and 4-10 are pending. Reconsideration of the above identified application, in view of the above amendments and the following remarks, is respectfully requested.

Claim Rejection - 35 U.S.C. § 112

Claim 9 has been rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Specifically, the Examiner states that an ignition switch cannot be differentiated from a starter switch and a key interlock switch. Claim 9 has been amended to cancel "an ignition switch, a starter switch and a key interlock switch." Hence, the rejection of claim 9 has been rendered moot. Applicant respectfully submits that for at least the aforementioned reasons, the rejection under 35 U.S.C. § 112, second paragraph, should be withdrawn, and reconsideration is respectfully requested.

Claim Rejection - 35 U.S.C. § 102(b)

Claims 1-10 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,553,488 to Ishii et al. ("Ishii"). Applicant respectfully traverses this rejection for the reasons set forth below.

The present invention is directed to a control unit for a vehicle having a self-diagnosis function for self-diagnosing a verification of a reception of a signal concerning a switch based on various vehicle information data. Claim 1 has been amended to state that a function checker, which is connected by connecting means, outputs a predetermined control signal into the control unit when the function checker receives a predetermined signal from the vehicle information data (page 6, lines 12-26 of the Specification). The predetermined control signal causes the control

unit to activate the self-diagnosis function automatically to establish a self-diagnosis mode (page 9, lines 21-18, of the Specification).

Ishii discloses a diagnosis apparatus for a vehicle control system including an electronic control unit (ECU) 51 and an external diagnosing unit 27 which can be connected to the ECU 51 via connector 28, e.g., by a service engineer when the vehicle is being inspected or repaired (Ishii, column 4, lines 52-61). There are two modes of self-diagnosis where one of the modes provides a diagnosis with higher precision (Ishii, column 5, lines 47-50). The operator performs a predetermined operation to the external diagnosing unit 27 so that the normal mode of the ECU 51 changes to the check mode (Ishii, column 5, lines 57-65). Ishii does not disclose that the external diagnosing unit 27 receives any signal from the ECU 51 before the self-diagnosis mode changes to the check mode.

Ishii does not disclose or suggest a function checker outputting a predetermined control signal that causes the control unit to activate the self-diagnosis function, as set forth in claim 1. Ishii's ECU 51 receives data from the diagnosing unit 27, such as a command to switch modes of the self-diagnosis program, e.g., a normal mode or a check mode, using a check mode flag CMF (Ishii, column 6, lines 40-47). However, this command does not cause the control unit to activate a self-diagnosis function, as set forth in the claims, but merely switches the self-diagnosis mode. Additionally, as shown in Fig. 3, the data is transmitted from the diagnosing unit 27 to the ECU 51 after the self-diagnosing routine already started, and therefore, the data cannot be used to activate the self-diagnosing routine.

Furthermore, even if one were to construe that Ishii's command to change the self-diagnosis mode serves as a predetermined control signal of the present invention, Ishii's external diagnosing unit 27 does not receive any signal from the vehicle information data when the self-diagnosis mode changes to the check mode. Thus, Ishii does not disclose that the function checker outputs a predetermined control signal into the control unit when the function checker receives a predetermined signal from the various vehicle information data, as set forth in claim 1.

Claim 7 is directed to a control system including a control unit with a self-diagnosis function for verifying the reception of two signals from two separate switches. A function checker receives the first signal, and the function checker transmits a pseudo signal of the second signal to the control until when the function checker receives the first signal. The control unit activates the self-diagnosis function to establish a self-diagnosis mode when receiving the pseudo signal.

Ishii does not disclose that the control unit activates the self-diagnosis function for verifying the reception of two separate signals from two separate switches. Ishii's ECU 51 receives data from various switches of the diagnosing unit 27 (Ishii, column 6, lines 32-34), but does not activate the self-diagnosis function to verify the reception of the various signals.

Furthermore, Ishii does not disclose transmitting a pseudo signal of a second signal, which is transmitted from a second switch to a control unit, wherein the pseudo signal is transmitted from a function checker to the control unit when the function checker receives a first signal transmitted via a first communication line between the control unit and the first switch. The data that is transmitted from Ishii's diagnosing unit 27 to the ECU 51 includes the command to switch modes (Ishii, column 5, line 61, to column 6, line 3). However, if this data is construed as a pseudo signal of a second signal, as recited in claim 7, Ishii does not disclose a corresponding second signal transmitted from a second switch to a control unit. Ishii also does not disclose that this data is transmitted when a function checker receives a first signal transmitted from a first switch to the control unit.

For the aforementioned reasons, Ishii fails to teach or suggest all of the features of the present invention as set forth in claims 1 and 7. Claims 2-6 and 8-10 are dependent on claims 1 and 7 and are therefore also patentable for at least the same reasons.

Based on the foregoing, the rejection of claims 1-10 under 35 U.S.C. § 102(b) should be withdrawn, and reconsideration is respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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